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(54) INFORMATION PROCESSOR AND INFORMATION PROCESSING METHOD AND PROGRAM

(57)Abstract:

PROBLEM TO BE SOLVED: To more easily execute rewriting processing of the contents recorded in a personal computer or the like to a recording medium.

SOLUTION: The contents to be checked out by music file storage sections 108-1 and 108-2 by each of an external apparatus medium IDs for identifying a PD 5 are stored in an automatic check out destination storage section 113. A GUI section 101 has the music files checked out by the PD 5 from the music file storage section 108 across a music managment section 104, a file retrieval section 106 and a database 107 according to the information of the check out contents stored in the automatic check out destination storage section 113 when the GUI section 101 detects the presence or absence of the connection through a PD plug-in 111 and when the connection is

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detected.

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**CLAIMS**

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**[Claim(s)]**

**[Claim 1] The read-out means which reads the data recorded on the record medium, and a data storage means containing said data read from said read-out means to memorize said data, The information processor characterized by having an extract means to extract the data corresponding to predetermined conditions from said data memorized by said data storage means, and a data-logging means to record said data extracted by said extract means on said record medium.**

**[Claim 2] Said predetermined conditions are an information processor according to claim 1 characterized by including random selection of the music listened to recently, music with few counts of check-out, the music of a favorite play list, and music, play list random selection, assignment of a genre, or assignment of a play list.**

[Claim 3] It is the information processor according to claim 1 which is further equipped with a condition storage means to memorize said two or more predetermined conditions, and a selection means to choose the predetermined conditions of arbitration from said two or more predetermined conditions, and is characterized by said extract means extracting the data corresponding to the predetermined conditions of the arbitration chosen from said data memorized by said data storage means by said selection means.

[Claim 4] Said selection means chooses the predetermined conditions of arbitration from said two or more predetermined conditions beforehand. It has further a selection-condition storage means to memorize the predetermined conditions of said arbitration beforehand chosen by said selection means. Said extract means The information processor according to claim 3 characterized by extracting the data corresponding to the predetermined conditions of the preselected arbitration memorized by said selection-condition storage means from said data memorized by said data storage means.

[Claim 5] It is the information processor according to claim 3 which is further equipped with a condition storage means to memorize said two or more predetermined conditions, and a selection means choose the predetermined conditions of two or more arbitration from said two or more predetermined conditions, and is characterized by for said extract means to extract the data corresponding to the predetermined conditions of two or more arbitration chosen from said data memorized by said data storage means by said selection means.

[Claim 6] Said selection means chooses the predetermined conditions of two or more arbitration from said two or more predetermined conditions beforehand. It has further a selection-condition storage means to memorize the predetermined conditions of two or more of said arbitration beforehand chosen by said selection means. Said extract means The information processor according to claim 5 characterized by extracting the data corresponding to the predetermined conditions of two or more preselected arbitration memorized by said selection-condition storage means from said data memorized by said data storage means.

[Claim 7] Said selection means chooses the predetermined conditions of two or more arbitration from said two or more predetermined conditions beforehand. It has further a selection-condition storage means to memorize the predetermined conditions of two or more of said arbitration beforehand chosen by said selection means. Said extract means From said data memorized by said data storage means, memorize with said selection-condition storage means. The data corresponding to the predetermined conditions of two or more preselected arbitration are extracted. Said data-logging means The information processor according to claim 6 characterized by the data corresponding to the predetermined conditions of each arbitration recording said data extracted by said extract means on said record medium as it can read in

predetermined sequence.

[Claim 8] It is the information processor according to claim 3 characterized by having further the record-medium discernment ID read-out means which reads ID which identifies said record medium, for said condition storage means memorizing said two or more predetermined conditions for said every ID, and for said selection means responding to said ID, and choosing the predetermined conditions of arbitration from said two or more predetermined conditions.

[Claim 9] It is the information processor according to claim 1 which is further equipped with a condition record means record said predetermined conditions on said record medium, and the condition read-out means which reads said predetermined conditions recorded on said record medium, and is characterized by for said extract means to extract the data corresponding to said predetermined conditions read by said condition read-out means from said data memorized by said data-storage means.

[Claim 10] Said data-logging means is an information processor according to claim 1 characterized by recording said data extracted by said extract means as the availability of said record medium decreases more.

[Claim 11] The read-out step which reads the data recorded on the record medium, and the data storage step containing said data read by processing of said read-out step which memorizes said data, The information processing approach characterized by including the extract step which extracts the data corresponding to predetermined conditions from said data memorized by processing of said data storage step, and the data-logging step which records said data extracted by processing of said extract step on said record medium.

[Claim 12] The read-out control step which controls read-out of the data recorded on the record medium, The data storage control step containing said data read by processing of said read-out control step which controls said data storage, The extract control step which controls the extract of the data corresponding to predetermined conditions from said data memorized by processing of said data storage control step, The program which makes a computer perform the data-logging control step which controls record to said record medium of said data extracted by processing of said extract control step.

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#### DETAILED DESCRIPTION

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##### [Detailed Description of the Invention]

###### [0001]

[Field of the Invention] This invention relates to a program at the information processor which could be made to simplify processing which selects especially the

data considered as a request about a program out of two or more data (for example, contents of music data or image data) as an information processor and an approach, and a list, and is recorded on a record medium more and an approach, and a list.

[0002]

[Description of the Prior Art] Recently, various kinds of contents (data) which consist of music data, image data, etc. have come to be recorded or reproduced by the record medium in digital one with the spread of digital technique. Thus, with digitization, large capacity-ization of HDD (Hard Disc Drive) of a personal computer etc. can also progress, and a user can manage a huge quantity of contents now with a personal computer etc.

[0003] For example, the function to reproduce the music content of a large number currently generally called the jukebox is given to a personal computer, and the software which reproduces the music content made to record on HDD etc. can be represented.

[0004] By the software of this jukebox, the music content considered as a request can be searched and reproduced based on predetermined conditions. For example, if a user inputs "BOSANOBA" as conditions for retrieval, only the music content into which the genre was registered as "BOSANOBA" among the music contents memorized by HDD will be chosen and reproduced. By doing in this way, a user can reproduce the music content of a favorite genre easily, without searching one one-piece contents of a large number memorized by HDD.

[0005]

[Problem(s) to be Solved by the Invention] By the way, when give the above jukebox functions, making the selected music content record on record media, such as a memory card, and making it reproduce with the regenerative apparatus of the music content of a pocket mold, generally, a user performs sorting processing of a music content which it is going to record on a record medium on a personal computer, and performs record processing to which the music content sorted out is made to record on a record medium further. That is, a user needs to perform two processings, sorting processing and record processing, in order to move a music content to a record medium.

[0006] And since there is a limitation in the number which can usually record the music content recorded on the record medium, if only the predetermined period is heard repeatedly, a user is going to perform exchange processing of the recorded contents in order to memorize redundant feeling. At this time, a user equips a personal computer with a record medium, above-mentioned sorting processing and record processing are performed, and a different music content is made recorded on a record medium, after deleting the contents recorded until now.

[0007] For this reason, if it is a personal computer etc. and the above software was started for every predetermined time interval, deletion, sorting processing, and record

processing needed to be repeated, and, as for the user, that actuation became troublesome.

[0008] This invention is made in view of such a situation, and it enables it to realize easily rewriting processing to the record medium of the music content recorded on the personal computer etc.

[0009]

[Means for Solving the Problem] The information processor of this invention is characterized by to have the read-out means which reads the data recorded on the record medium, a data-storage means containing the data read from the read-out means memorize data, an extract means extract the data corresponding to predetermined conditions from the data memorized by the data-storage means, and a data-logging means record the data extracted by the extract means on a record medium.

[0010] Random selection of the music listened to recently, music with few counts of check-out, the music of a favorite play list, and music, play list random selection, assignment of a genre, or assignment of a play list can be included in said predetermined conditions.

[0011] A condition storage means to memorize said two or more predetermined conditions, and a selection means to choose the predetermined conditions of arbitration from two or more predetermined conditions can be made to establish further, and an extract means can be made to extract the data corresponding to the predetermined conditions of the arbitration chosen by the selection means from the data memorized by the data storage means.

[0012] The predetermined conditions of arbitration can be made to choose it as said selection means from two or more predetermined conditions beforehand. A selection-condition storage means to memorize the predetermined conditions of the arbitration beforehand chosen by the selection means can be made to establish further. For an extract means The data corresponding to the predetermined conditions of the preselected arbitration memorized by the selection-condition storage means can be made to extract from the data memorized by the data storage means.

[0013] A condition storage means to memorize said two or more predetermined conditions, and a selection means to choose the predetermined conditions of two or more arbitration from two or more predetermined conditions can be made to establish further, and an extract means can be made to extract the data corresponding to the predetermined conditions of two or more arbitration chosen by the selection means from the data memorized by the data storage means.

[0014] The predetermined conditions of two or more arbitration can be made to choose it as said selection means from two or more predetermined conditions beforehand. A selection-condition storage means to memorize the predetermined

conditions of two or more arbitration beforehand chosen by the selection means can be established further. For an extract means The data corresponding to the predetermined conditions of two or more preselected arbitration memorized by the selection-condition storage means can be made to extract from the data memorized by the data storage means.

[0015] The predetermined conditions of two or more arbitration can be made to choose it as said selection means from two or more predetermined conditions beforehand. A selection-condition storage means to memorize the predetermined conditions of two or more arbitration beforehand chosen by the selection means can be made to establish further. For an extract means From the data memorized by the data storage means, memorize with the selection-condition storage means. The data corresponding to the predetermined conditions of two or more preselected arbitration can be made to extract. For a data-logging means The data corresponding to the predetermined conditions of each arbitration can make the data extracted by the extract means record on a record medium that it can read in predetermined sequence.

[0016] Two or more predetermined conditions can be made to memorize for every ID, the record-medium discernment ID read-out means which reads ID which identifies said record medium can be made to establish further, and a condition storage means can be made to respond to ID and to choose the predetermined conditions of arbitration as a selection means from two or more predetermined conditions.

[0017] A condition record means to record said predetermined conditions on a record medium, and the condition read-out means which reads the predetermined conditions recorded on the record medium can be made to establish further, and an extract means can be made to extract the data corresponding to the predetermined conditions read by the condition read-out means from the data memorized by the data storage means.

[0018] The data extracted by the extract means can be made to record that the availability of a record medium decreases more on said data-logging means.

[0019] The read-out step which reads the data with which the information processing approach of this invention was recorded on the record medium, The data storage step containing the data read by processing of a read-out step which memorizes data, From the data memorized by processing of a data storage step, it is characterized by including the extract step which extracts the data corresponding to predetermined conditions, and the data-logging step which records the data extracted by processing of an extract step on a record medium.

[0020] The read-out control step which controls read-out of the data with which the program of this invention was recorded on the record medium, The data storage control step containing the data read by processing of a read-out control step which controls a data storage, The extract control step which controls the extract of the data corresponding to predetermined conditions from the data memorized by

processing of a data storage control step. It is characterized by making a computer perform the data-logging control step which controls record to the record medium of the data extracted by processing of an extract control step.

[0021] The data which the data recorded on the information processor of this invention and the approach, and the list by the record medium in the program are read, and contain the read data and which the data corresponding to predetermined conditions were extracted from the data which data were memorized and were memorized, and were extracted are recorded on a record medium.

[0022]

[Embodiment of the Invention] Drawing 1 is drawing showing the gestalt of 1 operation of the contents data management system concerning this invention. The personal computer 1 is connected to the network 2 which consists of a Local Area Network or the Internet. A personal computer 1 records as it is, or with cipher systems, such as DES (Data Encryption Standard), it enciphers and it records them while changing into the method (for example, ATRAC3 (trademark)) of predetermined coding the data (contents are called hereafter) of the musical sound which received from the EMD (Electronic Music Distribution) server 3, or was read in CD (Compact Disc).

[0023] A personal computer 1 records the right information which shows the use conditions of contents corresponding to the contents which as [ contents ] or encipher and are recording the plaintext.

[0024] Right information shows the number (number of the so-called PD which can be checked out mentioned later) of a portable device (Portable Device (it is also called PD)) which can use the contents corresponding to the right information for coincidence, for example. Even when only the number shown in right information checks out contents, a personal computer 1 can reproduce the contents.

[0025] Moreover, right information shows the information on the ability of the contents to be copied. When contents are copied to the portable device 5-1 thru/or 5-3, a personal computer 1 can reproduce the contents currently recorded. The count which the portable device 5-1 of contents thru/or 5-3 can be made to memorize may be restricted. In this case, the count which can be copied does not increase.

[0026] Furthermore, right information shows the information on whether the contents are movable to other personal computers. After moving contents to the portable device 5-1 thru/or 5-3, it becomes impossible to use the contents which the personal computer 1 is recording (contents are deleted, or it becomes impossible to use right information, being changed).

[0027] The detail of right information is mentioned later.

[0028] A personal computer 1 updates the right information corresponding to the contents which made them memorize corresponding to having made the portable device 5-1 memorize with the data (for example, a music name or playback conditions etc.) relevant to contents while storing the contents currently enciphered and

recorded in the portable device 5-1 connected through a USB (Universal Serial Bus) cable (check-out is called hereafter). The count which can check out the right information corresponding to the contents which the personal computer 1 is recording on it more when you check out in a detail is reduced by one. Corresponding contents cannot be checked out when the count which can be checked out is 0.

[0029] A personal computer 1 updates the right information corresponding to the contents which made them memorize with the data relevant to contents corresponding to having made the portable device 5-2 memorize while storing the contents currently enciphered and recorded in the portable device 5-2 connected through a USB cable. A personal computer 1 updates the right information corresponding to the contents which made them memorize with the data relevant to contents corresponding to having made the portable device 5-3 memorize while storing the contents currently enciphered and recorded in the portable device 5-3 connected through a USB cable.

[0030] moreover, the right information corresponding to the contents which the personal computer 1 made the portable device 5-1 eliminate the contents which the personal computer 1 checked out to the portable device 5-1 connected through a USB cable (or it carries out by the ability not using it -- making), and were made to eliminate is updated (check-in is called hereafter). More, when you check in, the count which can check out the right information on corresponding contents which the personal computer 1 is recording is increased by the detail one.

[0031] the right information corresponding to the contents which the personal computer 1 made the portable device 5-2 eliminate the contents which the personal computer 1 checked out to the portable device 5-2 connected through a USB cable (or it carries out by the ability not using it -- making), and were made to eliminate is updated. the right information corresponding to the contents which the personal computer 1 made the portable device 5-3 eliminate the contents which the personal computer 1 checked out to the portable device 5-3 connected through a USB cable (or it carries out by the ability not using it -- making), and were made to eliminate is updated.

[0032] Other personal computers which do not illustrate a personal computer 1 cannot check in at the contents checked out to the portable device 5-1. A personal computer 1 cannot check in at the contents which other personal computers checked out to the portable device 5-2. A personal computer 1 cannot check in at the contents which other personal computers checked out to the portable device 5-3.

[0033] The EMD server 3 supplies contents to a personal computer 1 through a network 2 corresponding to the demand of a personal computer 1 with the data (for example, a music name or a playback limit etc.) relevant to contents.

[0034] It encodes by the method of predetermined coding and the contents which the EMD server 3 supplies are enciphered by the method of predetermined encryption.

The EMD server 3 supplies the key for decoding contents to a personal computer 1. [0035] The WWW (World Wide Web) server 4 supplies the data (for example, the album name of CD or the selling firm of CD etc.) corresponding to CD which read contents, and the data (for example, a music name or a composer name etc.) corresponding to the contents read in CD to a personal computer 1 through a network 2 corresponding to the demand of a personal computer 1.

[0036] The portable device 5-1 memorizes the contents (namely, checked-out contents) supplied from the personal computer 1 with the data (for example, a music name or a playback limit etc.) relevant to contents. Based on the data relevant to contents, the portable device 5-1 is reproduced and outputs the memorized contents to the headphone which are not illustrated.

[0037] For example, when it is going to reproduce exceeding the count of playback as a playback limit memorized as data relevant to contents, the portable device 5-1 suspends playback of corresponding contents. When it is going to reproduce after passing over the playback term as a playback limit memorized as data relevant to contents, the portable device 5-1 suspends playback of corresponding contents.

[0038] A user can reproduce the memorized contents which removed the portable device 5-1 which memorized contents from the personal computer 1, and walked around with, and can listen to the music corresponding to contents etc. by headphone etc.

[0039] The portable device 5-2 memorizes the contents supplied from the personal computer 1 with the data relevant to contents. Based on the data relevant to contents, the portable device 5-2 is reproduced and outputs the memorized contents to the headphone which are not illustrated. A user can reproduce the memorized contents which removed the portable device 5-2 which memorized contents from the personal computer 1, and walked around with, and can listen to the music corresponding to contents etc. by headphone etc.

[0040] The portable device 5-3 memorizes the contents supplied from the personal computer 1 with the data relevant to contents. Based on the data relevant to contents, the portable device 5-3 is reproduced and outputs the memorized contents to the headphone which are not illustrated. A user can reproduce the memorized contents which removed the portable device 5-3 which memorized contents from the personal computer 1, and walked around with, and can listen to the music corresponding to contents etc. by headphone etc.

[0041] Hereafter, when it is not necessary to distinguish the portable device 5-1 thru/or 5-3 separately, the portable device 5 is only called.

[0042] Drawing 2 is drawing explaining the configuration of a personal computer 1. CPU (Central Processing Unit)<sup>11</sup> actually performs the various application programs for realizing the function mentioned later, and OS (Operating System). Generally ROM (Read-only Memory)<sup>12</sup> stores the data of immobilization fundamentally of the

parameters the program which CPU11 uses, and for an operation. RAM (Random-Access Memory)13 stores a variable parameter suitably in the program used in activation of CPU11, and its activation. These are mutually connected by the host bus 14 which consists of CPU buses etc.

[0043] The host bus 14 is connected to the external buses 16, such as a PCI (Peripheral Component Interconnect/Interface) bus, through the bridge 15.

[0044] A keyboard 18 is operated by the user when inputting various kinds of commands into CPU11. A mouse 19 is operated by the user when performing the directions and selection of the point on the screen of a display 20. A display 20 consists of a liquid crystal display or CRT (Cathode Ray Tube), and displays various information in a text or an image. HDD (Hard Disc Drive)21 drives a hard disk, and records or reproduces the program and information which are performed by CPU11 to them.

[0045] Drive 22 reads the data or the program currently recorded on the magnetic disk 41 with which it is equipped, an optical disk 42 (CD is included), a magneto-optic disk 43, or semiconductor memory 44, and supplies the data or program to RAM13 with which it connects through the interface 17, the external bus 16, the bridge 15, and the host bus 14.

[0046] The portable device 5-1 is connected to the USB port 23-1 through a USB cable. The USB port 23-1 outputs the data (for example, the command of contents or the portable device 5-1 etc. is included) supplied from HDD21, CPU11, or RAM13 to the portable device 5-1 through an interface 17, an external bus 16, a bridge 15, or the host bus 14.

[0047] The portable device 5-2 is connected to the USB port 23-2 through a USB cable. The USB port 23-2 outputs the data (for example, the command of contents or the portable device 5-2 etc. is included) supplied from HDD21, CPU11, or RAM13 to the portable device 5-2 through an interface 17, an external bus 16, a bridge 15, or the host bus 14.

[0048] The portable device 5-3 is connected to the USB port 23-3 through a USB cable. The USB port 23-3 outputs the data (for example, the command of contents or the portable device 5-3 etc. is included) supplied from HDD21, CPU11, or RAM13 to the portable device 5-3 through an interface 17, an external bus 16, a bridge 15, or the host bus 14.

[0049] A loudspeaker 24 outputs the predetermined voice corresponding to contents based on the sound signal supplied from the interface 17.

[0050] These keyboard 18 \*\* loudspeakers 24 are connected to the interface 17, and the interface 17 is connected to CPU11 through the external bus 16, the bridge 15, and the host bus 14.

[0051] The communications department 25 outputs the data (for example, contents etc.) stored in the packet which received to CPU11, RAM13, or HDD21 through a

network 2 while a network 2 is connected, and it stores in the packet of a predetermined method the data (for example, Request to Send of contents etc.) supplied from CPU11 or HDD21 and transmits through a network 2.

[0052] The communications department 25 is connected to CPU11 through the external bus 16, the bridge 15, and the host bus 14.

[0053] Hereafter, when it is not necessary to distinguish the USB port 23-1 thru/or 23-3 separately, the USB port 23 is only called.

[0054] Drawing 3 is a block diagram explaining the function of the personal computer 1 realized when CPU11 performs a contents manager. The GUI (Graphical User Interface) section 101 requires registration of the data corresponding to the contents to a database 107 while supplying the file name of the file by which the music name or contents corresponding to the contents which a user considers as a request is stored in the music Management Department 104 etc. corresponding to actuation of the keyboard 18 by the user, or a mouse 19. The GUI section 101 controls the mode of operation (turning on and off) of automatic check-in / check-out.

[0055] The GUI section 101 acquires data, such as the data ID corresponding to contents, for example, music, a music name, or an artist name, from a database 107 through the music Management Department 104, and displays Music ID, a music name, or an artist name on a display 20. The GUI section 101 requires playback of contents of the contents management processing section 102 while supplying the music ID corresponding to the contents as which playback was required to the contents management processing section 102, when playback of contents is required by actuation of a user.

[0056] The GUI section 101 requires a transfer of contents of the transfer processing section 103 while supplying the music ID corresponding to the contents as which the transfer was required to the transfer processing section 103, when transfers (check-out, a copy, or migration) of contents are required by actuation of a user or automatic check-in / check-out processing.

[0057] The contents management processing section 102 requires the file name corresponding to contents while supplying the music ID corresponding to the contents as which playback was required of the music Management Department 104, when playback of contents is required from the GUI section 101. The contents management processing section 102 acquires contents from the music file storing section 108-1 or 108-2 through the music Management Department 104, the file search section 106, and a database 107, when a file name is acquired from the music Management Department 104.

[0058] The contents management processing section 102 supplies the acquired contents to the PC (Protected Content) plug-in 109-1 or 109-2.

[0059] When contents are supplied from the contents management processing section 102 and contents are not enciphered, the PC plug-in 109-1 decodes the contents

encoded, and supplies voice data to the voice output section 110-1. The PC plug-in 109-1 decodes the contents encoded, and supplies voice data to the voice output section 110-1 while it decodes the contents enciphered to a plaintext when contents are supplied from the contents management processing section 102, and contents are enciphered. The voice output section 110-1 generates a sound signal, and makes voice output to a loudspeaker 24 based on voice data.

[0060] When contents are supplied from the contents management processing section 102 and contents are not enciphered, the PC plug-in 109-2 decodes the contents encoded, and supplies voice data to the voice output section 110-2. The PC plug-in 109-2 decodes the contents encoded, and supplies voice data to the voice output section 110-2 while it decodes the contents enciphered to a plaintext when contents are supplied from the contents management processing section 102, and contents are enciphered. The voice output section 110-2 generates a sound signal, and makes voice output to a loudspeaker 24 based on voice data.

[0061] A user can do additional install of the PC plug-in further at a personal computer 1.

[0062] When there is no need of distinguishing the PC plug-in 109-1 or the PC plug-in 109-2 separately, hereafter, the PC plug-in 109 is only called.

[0063] The transfer processing section 103 requires the file name corresponding to contents while supplying the music ID corresponding to the contents as which the transfer was required to the music Management Department 104, when a transfer of contents is required from the GUI section 101. The transfer processing section 103 acquires the contents corresponding to a file name from the music file storing section 108-1 or 108-2 through the music Management Department 104, the file search section 106, and a database 107, when a file name is acquired from the music Management Department 104.

[0064] The transfer processing section 103 supplies the acquired contents to the PD plug-in 111-1 or 111-2.

[0065] When transmitting contents to the portable device 5-1, mutual recognition of the PD plug-in 111-1 is carried out to the portable device 5-1. When mutual recognition is not carried out, the PD plug-in 111-1 does not transmit contents to the portable device 5-1.

[0066] The PD plug-in 111-1 supplies contents to the portable device 5-1 with the data relevant to contents, when contents are supplied from the transfer processing section 103 and contents are enciphered. The PD plug-in 111-1 supplies the contents which enciphered contents and were enciphered with the data relevant to contents to the portable device 5-1, when contents are supplied from the transfer processing section 103 and contents are not enciphered.

[0067] In addition, processing of mutual recognition may be made to perform when the portable device 5-1 is connected to a personal computer 1.

- [0068] When transmitting contents to the portable device 5-2, mutual recognition of the PD plug-in 111-2 is carried out to the portable device 5-2. When mutual recognition is not carried out, the PD plug-in 111-2 does not transmit contents to the portable device 5-2.
- [0069] The PD plug-in 111-2 supplies contents to the portable device 5-2 with the data relevant to contents, when contents are supplied from the transfer processing section 103 and contents are enciphered. The PD plug-in 111-2 supplies the contents which enciphered contents and were enciphered with the data relevant to contents to the portable device 5-2, when contents are supplied from the transfer processing section 103 and contents are not enciphered.
- [0070] In addition, processing of mutual recognition may be made to perform when the portable device 5-2 is connected to a personal computer 1.
- [0071] A user can do additional install of the PD plug-in further at a personal computer 1.
- [0072] Hereafter, when it is not necessary to distinguish the PD plug-in 111-1 or the PD plug-in 111-2 separately, the PD plug-in 111 is only called.
- [0073] The music Management Department 104 makes the contents stored in the file currently recorded on HDD21, or the contents supplied from the contents management processing section 102 store in a file, and makes them record on the music file storing section 108-1 or 108-2 through a database 107.
- [0074] The music Management Department 104 reads a music name or a file name from a database 107 while making data, such as a music name corresponding to contents, and a file name corresponding to contents, record on a database 107. When a music name or a file name is received from the GUI section 101, the music Management Department 104 makes a record add to a database 107, and makes a music name or a file name record as an item of a record.
- [0075] The music Management Department 104 reads all music names, Music ID, etc. that are recorded on the database 107 from a database 107 corresponding to the demand from the GUI section 101, and supplies the GUI section 101.
- [0076] When Music ID is supplied from the contents management processing section 102, the music Management Department 104 reads the file name corresponding to Music ID from a database 107, and supplies the read file name to the contents management processing section 102. When Music ID is supplied from the transfer processing section 103, the music Management Department 104 reads the file name corresponding to Music ID from a database 107, and supplies the read file name to the transfer processing section 103.
- [0077] In the case of processing of automatic check-in / check-out, the music Management Department 104 reads the information the contents of check-out for every PD5 (the check-out approach) were described to be from the automatic check-out place storing section 113, and reads contents from the music file storing

section 108 through the file search section 106 and a database 107 by the approach corresponding to the called contents of check-out. In that case, the music Management Department 104 calls the file (program) the read-out work habits of contents were described to be from the contents storing section 112 of automatic check-out, and performs in the procedure described by the file.

[0078] The file search section 106 searches the file (contents are stored) corresponding to a file name based on the file name acquired from the database 107 corresponding to a demand of the music Management Department 104 from the music file storing section 108-1 or 108-2. The file search section 106 supplies the file read from the music file storing section 108-1 or 108-2 to the music Management Department 104, or supplies the file which changed the file name of a file and changed the file name to the music Management Department 104.

[0079] The music Management Department 104 supplies the file which was supplied from the file search section 106 and in which contents are stored to the contents management processing section 102 or the transfer processing section 103.

[0080] A database 107 records the attribute of the data about contents, for example, ID of music, a music name, a file name, or others etc. A database 107 is stored in HDD21.

[0081] Drawing 4 is drawing showing the example of the data which a database 107 records. A database 107 is a relational database and manages the data corresponding to contents on a music table and a file table.

[0082] For example, a music table is constituted by the record which consists of the item of Music ID, and the item of a music name, is made to correspond to one music ID, and stores one music name. Music ID corresponds to one music at a meaning.

[0083] In the example shown in drawing 4, corresponding to the music ID which is 1, music name Song-A is recorded, corresponding to the music ID which is 2, music name Song-B is recorded on a music table, and music name Song-C is recorded on it corresponding to the music ID which is 3.

[0084] For example, a file table is constituted by the record which consists of the item of File ID, the item of Music ID, the item of a format, the item of a codec, the item of a bit rate, and the item of a file name, is made to correspond to one file ID, and stores Music ID, a format, a codec, a bit rate, or a file name. Two or more files ID may correspond to the same music ID.

[0085] File ID corresponds to one file at a meaning. A format is data in which the format of a file is shown. A codec is data in which the coding method of the contents stored in the file is shown. A bit rate is data in which the amount of data of per unit time amount (for example, for 1 second) of contents is shown. A file name is data in which a file name including the pass which consists of a drive name and a folder name is shown.

[0086] The codec which is the format and MP3 which is Music ID and MP3 which is 1,

the bit rate which is 128000, and the file name which is F:\Music\Song-A.mp3 are stored in a file table, and the format which is the music ID and OpenMG which is 1, the codec which is ATRAC3, the bit rate which is 105000, and the file name which is F:\Optimized\Song-A.omg be stored in it in the example shown in drawing 4 corresponding to the file ID which is 102 corresponding to the file ID which is 101. Moreover, in the example shown in drawing 4, the codec which is the format and MP3 which are Music ID and MP3 which are 2, the bit rate which is 128000, and the file name which is F:\Music\Song-B.mp3 are stored in the file table corresponding to the file ID which is 103.

[0087] Furthermore, in the example shown in drawing 4, corresponding to the file ID which is 104, the format which is the music ID and OpenMG which is 3, the codec which is ATRAC3, the bit rate which is 132000, and the file name which is F:\Music\Song-C.omg are stored in a file table, and the format which is the music ID and OpenMG which is 3, the codec which is ATRAC3, the bit rate which is 105000, and the file name which is F:\Optimized\Song-C2.omg be stored in it corresponding to the file ID which is 105.

[0088] The music file storing section 108-1 consists of external storage which is not illustrated, such as HDD21 or removable disk equipment, and stores contents as a file. The contents currently recorded on the music file storing section 108-1 have what has right information, and the thing which does not have right information. The music file storing section 108-1 can store one or more files corresponding to one music. The music file storing section 108-1 corresponds to one drive letter. The drive letter corresponding to the music file storing section 108-1 may be changed.

[0089] The music file storing section 108-2 consists of external storage which is not illustrated, such as HDD21 or removable disk equipment, and stores contents as a file. The contents currently recorded on the music file storing section 108-2 have what has right information, and the thing which does not have right information. The music file storing section 108-2 can store one or more files corresponding to one music. The music file storing section 108-2 corresponds to one drive letter. The drive letter corresponding to the music file storing section 108-2 may be changed.

[0090] One or more files corresponding to one music may be recorded on the music file storing section 108-1, and one or more files corresponding to the music may be recorded on the music file storing section 108-2.

[0091] Drawing 5 is drawing explaining correspondence with music and a file. In the example shown in drawing 5, the music which is Song-A belonging to the play list A corresponds to FileA.omg, the music which is Song-B belonging to the play list A and the play list B corresponds to FileB.mp3 and FileC.omg, and the music which is Song-C belonging to the play list A corresponds to FileD.wav. A play list is a unit of the classification of music used for the display of a music name etc. with which 0 or one or more music are matched.

[0092] By doing in this way, two or more files of a different format or a coding method can be used now as one contents.

[0093] The right information storing section 105 stores in HDD21 the right information corresponding to the file based on the specification specified to SDMI (Secure Digital Music Initiative), and manages it. When Music ID is received from the music Management Department 104, the right information storing section 105 retrieves one right information corresponding to Music ID, and supplies the retrieved right information to the music Management Department 104.

[0094] Drawing 6 is drawing showing the example of the right information stored in the right information storing section 105. Right information consists of content ID, the count of the remaining playback, a count of the remaining check-out, playback initiation time, or playback termination time. The right information stored in the right information storing section 105 supports one file stored in the music file storing section 108-1 or 108-2.

[0095] The file stored in the music file storing section 108-1 or 108-2 consists of contents which are a header and musical-sound data.

[0096] Next, with reference to drawing 7, processing of encryption of contents, processing of addition of the right information corresponding to contents, and processing of conversion of the coding method of contents are explained.

[0097] For example, when the contents of an MP3 method are imported (it registers with a database 107) and the 1st setup (set up by actuation of the GUI section 101) is made, right information is not generated but the data corresponding to contents are registered into a database 107.

[0098] The contents of the imported MP3 method without generating right information When it is inspected corresponding to subsequent actuation whether the watermark of a predetermined method is contained in the contents of an MP3 method and the watermark of a predetermined method is not contained, The contents of ATRAC3 method which the contents enciphered with the MP3 method were generated further, and was checked out, or the contents of ATRAC3 method were generated further, was enciphered and was enciphered are stored in the music file storing section 108.

[0099] For example, when the contents of an MP3 method are imported, the 2nd setup is made, it is inspected whether the watermark of a predetermined method is contained in the contents of an MP3 method and the watermark of a predetermined method is not contained, the data corresponding to contents are registered into a database 107. Furthermore, while a coding method is not changed but the contents of an MP3 method have been plaintexts, the right information corresponding to the contents of an MP3 method is generated. The generated right information is stored in the right information storing section 105.

[0100] Right information is generated, corresponding to subsequent actuation, the contents enciphered with the MP3 method are generated further, and the contents of

the imported MP3 method are checked out, or the contents of ATRAC3 method are generated further and they are enciphered. The contents of ATRAC3 enciphered method are stored in the music file storing section 108.

[0101] By doing in this way, the contents are the same contents, and a contents data management system does not need to record on a duplex what is not enciphered as what is enciphered, and can use record sections, such as HDD21, effectively.

[0102] When the contents of an MP3 method are imported, the 3rd setup is made; it is inspected whether the watermark of a predetermined method is contained in the contents of an MP3 method and the watermark of a predetermined method is not contained, the data corresponding to contents are registered into a database 107. Furthermore, while the contents changed into ATRAC3 method are generated and the generated contents are enciphered, the contents which were made into ATRAC3 method and enciphered are recorded on the music file storing section 108, the right information corresponding to the contents of ATRAC3 method is generated, and the generated right information is stored in the right information storing section 105.

[0103] When the watermark of a predetermined method is contained in contents, the contents are not registered, and a coding method is not changed, and they are not enciphered and checked out.

[0104] When ripping of the contents currently recorded on CD is carried out, while the read contents are changed into ATRAC3 method and enciphered, the contents which were changed into ATRAC3 method and enciphered are recorded on the music file storing section 108, the right information corresponding to the contents of ATRAC3 method is generated, and the generated right information is stored in the right information storing section 105.

[0105] Processing of the above import, predetermined processing after import, or processing of ripping is performed to 1 or two or more contents.

[0106] In case processing of automatic check-out is performed, the contents storing section 112 of automatic check-out stores the definition file which showed the contents (approach) which were stored in the music file storing section 108, and which carry out music file (contents) check-out, and when automatic check-out is performed, it is referred to. In addition, about processing of automatic check-in / check-out, a detail is mentioned later.

[0107] Drawing 8 shows the example of description of the definition file for every check-out approach. As for the check-out approach, seven pieces, "the music listened to recently", "little music of the count of check-out", "the music of a favorite play list", "random selection of music", "random selection of a play list", "assignment of a genre", and "assignment of a play list", are defined.

[0108] For example, it is described as "ObjectSpecId=2" by the 1st line of the definition file of "the music listened to recently", and it is shown in it whether what is chosen is a play list, or it is music, when a value is 1, a play list is shown, and when a

value is 2, it is shown that it is music. That is, in now, it is shown that music is chosen from the music file storing section 108.

[0109] It is described as "FilterPropertySpecId=303" by the 2nd line and the property which carries out filtering is shown in it. In now, as a parameter, 303 is displayed and it is shown that the contents which carry out filtering are playback time. That is, it is shown that the 2nd line carries out filtering of the music file stored in the music file storing section 108 by playback time.

[0110] It is described as "Filter=%s>0" by the 3rd line, the conditions at the time of carrying out filtering are described, and it is shown that the value shown by the 2nd-line description, i.e., the value of playback time, is assigned to the part of "%s."

[0111] It is described as "SortPropertySpecId=303" by the 4th line and the property which carries out sorting application is shown in it. In now, as a parameter, 303 is displayed and it is shown that the criteria which carry out sorting application are playback time. That is, it is shown that the 4th line carries out sorting application of the music file stored in the music file storing section 108 by playback time.

[0112] It is described as "Asc=-1" by the 5th line and it is shown in it whether the 4th-line sorting application is an ascending sort or it is descending sorting. In now, since the parameter is indicated to be "-1", it is shown that it is descending sorting.

[0113] That is, it is defined by the definition file of "the music listened to recently" that a music file is sorted by descending order corresponding to playback time.

[0114] It is described as "ObjectSpecId=2" by the 1st line of the definition file of "music with few counts of check-out", it is shown in it whether what is chosen is a play list, or it is music, and, in now, it is shown that music is chosen from the music file storing section 108.

[0115] It is described as "SortPropertySpecId=1146" by the 2nd line and the property which carries out sorting application is shown in it. In now, as a parameter, 1146 is displayed and it is shown that the criteria which carry out sorting application are a count of accumulation check-out. That is, it is shown that the 2nd line carries out sorting application of the music file stored in the music file storing section 108 by the count of accumulation check-out.

[0116] It is described as "Asc=1" by the 3rd line and it is shown in it whether the 4th-line sorting application is an ascending sort or it is descending sorting. In now, since the parameter is indicated to be "1", it is shown that it is an ascending sort.

[0117] That is, it is defined by the definition file of "music with few counts of check-out" that a music file is sorted by ascending order corresponding to the count of accumulation check-out.

[0118] Algorithm which is a definition command is used for the definition file of "the music of a favorite play list", "favorite" is shown in it as a parameter, and extracting the music file belonging to a favorite play list is defined as it.

[0119] Algorithm which is a definition command is used for the definition file of

"random selection of music", "random" is shown in it as a parameter, and extracting a music file at random is defined as it.

[0120] Algorithm which is a definition command is used for the definition file of "random selection of music", "randomPlayList" is shown in it as a parameter, a play list is chosen as it at random, and extracting the music file belonging to the selected play list is defined as it.

[0121] It is described as "ObjectSpecId=2" by the 1st line of the definition file of "assignment of a genre", and, in now, it is shown in it that music is chosen from the music file storing section 108.

[0122] It is described as "FilterPropertySpecId=200" by the 2nd line and the property which carries out filtering is shown in it. In now, as a parameter, "200" is displayed and it is shown that the contents which carry out filtering are genre names. That is, it is shown that the 2nd line carries out filtering of the music file stored in the music file storing section 108 by the genre name.

[0123] It is described as "Filter=%s Like'%%%1%" by the 3rd line, the conditions at the time of carrying out filtering are described, and it is shown that the value shown by the 2nd-line description of the format defined as the part of "%s" by "Like'%%%1%", i.e., the parameter which specifies a genre name, is assigned.

[0124] It is described as "SortPropertySpecId=200" by the 4th line and the property which carries out sorting application is shown in it. In now, as a parameter, "200" is displayed and it is shown that the criteria which carry out sorting application are a genre name. That is, it is shown that the 4th line carries out sorting application of the music file stored in the music file storing section 108 by the genre name.

[0125] It is described as "Asc=1" by the 5th line and it is shown in it whether the 4th-line sorting application is an ascending sort or it is descending sorting. Since the parameter is indicated to be "1" in now, it is shown that sorting application is performed by the ascending sort.

[0126] It is described as "ParamCount=1" by the 6th line and the number of parameters is shown in it, when it is now, "1" is shown and it is shown that a number of parameters is one piece. It is described as the "ParamName1= genre name" by the 7th line, and the display name of a parameter is shown in it, and when it is now, it is shown that it is a "genre name." It is described as "ParamKey1=Genre" by the 8th line, and the internal name of a parameter is shown in it, and when it is now, it is shown that the internal name of a parameter is "genre."

[0127] Namely, by the definition file of "assignment of a genre", by making a genre name into a parameter, filtering is carried out and extracting the music file which carried out the ascending sort is described.

[0128] It is described as "ObjectSpecId=2" by the 1st line of the definition file of "assignment of a play list", and, in now, it is shown in it that music is chosen from the music file storing section 108.

- [0129] It is described as "Algorithm=PlayList" by the 2nd line, Algorithm which is a definition command is used for it, "PlayList" is shown in it as a parameter, and extracting the music file belonging to a predetermined play list is defined as it.
- [0130] It is described as "ParamCount=1" by the 3rd line and the number of parameters is shown in it, when it is now, "1" is shown and it is shown that a number of parameters is one piece. It is described as the "ParamName1= play list name" by the 4th line, and the display name of a parameter is shown in it, and when it is now, it is shown that it is a "play list name." It is described as "ParamKey1=PlayList" by the 5th line, and the internal name of a parameter is shown in it, and when it is now, it is shown that the internal name of a parameter is "PlayList."
- [0131] That is, by the definition file of "assignment of a play list", it carries out filtering, using a play list name as a parameter, the ascending sort of the music file belonging to the play list is carried out, and extracting is described.
- [0132] The file which defined the contents of automatic check-out (approach) every PD5 is memorized for every ID which identifies PD5, and the automatic check-out place storing section 113 is referred to based on ID which identifies PD5, when processing of automatic check-out is performed.
- [0133] The information on a check-out place is stored in the automatic check-out place storing section 113 in the format as shown by drawing 9 for every ID which identifies PD5. That is, in now, as the external instrument and media ID which identify PD5, "B059DE77420406004DC2000009005000" is recorded by the 1st step with "0101A1346001001479FFFF000012D103", and ID which identifies "a memory card A" and "a memory card B" as corresponding external instrument and media name is recorded on it. Moreover, "the music listened to recently" is set up as "contents -1 of check-out" of the memory card A identified by ID of "0101A1346001001479FFFF000012D103", and nothing is further set up as "contents -2 of check-out." That is, in now, "the music listened to recently" will be extracted by the definition file stored in the contents storing section 112 of automatic check-out explained with reference to drawing 8, and will be recorded on the memory card A identified by ID of "0101A1346001001479FFFF000012D103."
- [0134] On the other hand, "assignment of a genre" is set up as "contents -1 of check-out", "Blues" is specified as a parameter, as "contents -2 of check-out", "assignment of a play list" is set to the memory card B identified by ID of "B059DE77420406004DC2000009005000", and "My favorites" is further specified as it as a parameter. That is, in now, the music file which is "Blues" as a genre, and the music file which belongs to "My favorites" as a play list being mixed with the memory card B identified by ID of "B059DE77420406004DC2000009005000", and being extracted by turns is shown. In addition, about processing of a mix, a detail is mentioned later.
- [0135] Next, when you check in or check out and the contents recorded on each

between a personal computer 1 and PDs5 are managed with reference to drawing 10. the GUI section 101 explains the example of a display of the screen displayed on a display 20.

[0136] The PD field 201 shows the information on the contents recorded on PD5. The track number on which contents are recorded is displayed on left-hand side, and the title name is displayed on the right-hand side. In now, the title of the contents which are stored in "Song-7" and a track number 04 "Song-9", and are stored in the track number 05 "Song-11" is shown to "Song-5" and a track number 03 by "Song-3" and the track number 02 at the track number 01.

[0137] Moreover, in the bottom of it, it is displayed as "a group 1", "Song-14" is displayed on "Song-12" and a track number 07 by the track number 06 as a title at "Song-13" and a track number 08, respectively, and it is shown that "Song-12" which is a track number 06 thru/or the contents of 08, "Song-13", and "Song-14" belong to the group who calls a group 1.

[0138] Furthermore, on the bottom of it, "Song-15" thru/or "Song-18" are displayed in a track number 09 thru/or 12, respectively, and a corresponding truck and the contents stored are shown.

[0139] The diskname display column 212 is formed on the PD field 201 in drawing, and when it is now, it is displayed as "the memory card A" as diskname. Furthermore, it is shown by the PD name display column 211 preparing on it that it is displayed as the "memory card" and the memory card is chosen as PD5 when it is a \*\*\*\* cage and now. The PD name display column 211 can choose the portable device now connected to the present personal computer 1, for example, when it is now, PD 5-1 thru/or either of 5-3 can also be chosen, and at this time, the information on the contents recorded on corresponding PD5 will be displayed on the PD field 201.

[0140] The PC (personal computer) field 202 is displayed on the left of the PD field 201, and the list of the contents stored in the music file storing section 107 of a personal computer 1 corresponding to the filter chosen in the filter display field 203 further located on left-hand side is displayed on it. Since "all music" is chosen into the filter display field 203 in now, in the PC field 202 All the contents currently recorded on the music file storing section 107 of a personal computer 1 are displayed. To a track number 1 "Song-5" is shown to "Song-3" and a track number 4 by "Song-2" and the track number 3 at "Song-4" and a track number 5 at "Song-1" and a track number 2, respectively. Moreover, for every contents, an artist name and a genre are read from a database 107, and can be displayed. Since neither is registered in now, it is displayed as "Unknown."

[0141] Between the PD field 201 and the PC field 202, the check-in carbon button 213, the check-out carbon button 214, all the check-in carbon buttons 215, the initiation carbon button 216, and the termination carbon button 217 are displayed. The check-in carbon button 213 is specified as contents at which the contents which the

user operated the mouse 19, were pushed and were chosen by being pushed check in, when specifying the contents made to check in at a personal computer 1 among the contents recorded on PD5. When the check-out carbon button 214 specifies the contents which PD5 is made to check out among the contents currently recorded on the personal computer 1, a user operates a mouse 19, it is pushed and the contents which he is going to check out by being pushed are specified.

[0142] All the check-in carbon buttons 215 are specified as contents which a user operates a mouse 19, it is pushed and all contents check out by being pushed, when specifying all the contents recorded on PD5 as contents which check in at a personal computer 1.

[0143] The initiation carbon button 216 is in the condition that the contents at which he checks in with either the check-in carbon button 213, the check-in carbon button 214 or all the check-in carbon buttons 215, or the contents to check out was specified, and when a user makes check-in or check-out start, it is pushed. While the above-mentioned initiation carbon button 216 is pushed and check-in or processing of check-out is performed, the termination carbon button 217 is pushed when stopping the processing. A pointer 205 is operated with a mouse 19 etc.

[0144] Next, with reference to the flow chart of drawing 11, automatic check-in / check-out setting processing is explained.

[0145] In step S1, the GUI section 101 repeats the processing until it judges whether a setup of automatic check-in / check-out was chosen and it chooses it. For example, as drawing 10 shows, a pointer 205 will be moved to the tool carbon button 221, as drawing 12 shows, a drop down list 231 is displayed, further, if setting column 231a is chosen by what predetermined actuation is performed for (for example, clicked), it will be judged with a setup having been chosen by it and the processing will progress to step S2 by it.(if clicked).

[0146] In step S2, the GUI section 101 displays the dialog box 241 for a setup, as drawing 13 shows. "Whole", a player", the "CD sound recording / playback 1", the "CD sound recording / playback 2", "import", a "play list", "an external instrument and media", and the tab of the "Internet" are displayed on a dialog box 241, and the display in a dialog box 241 changes to it by clicking a part for the display of each tab.

[0147] In step S3, as for the GUI section 101, it is judged whether the tab of "an external instrument and media" was chosen. For example, in step S4, if judged with an external instrument and media tab 241a having been chosen (clicked), the GUI section 101 will display the contents of a setting of an external instrument and media, as drawing 13 shows. As contents of a setting of an external instrument and media, from drawing Nakagami, a display / non-display" of "message, and "a carbon button display / non-display", write-in" of "additional information and automatic check-in / check-out" is displayed on a dialog box 241 as an item, and the check box which makes the corresponding contents of a setting ON or OFF is displayed on it.

[0148] In step S5, the GUI section 101 judges [ whether the check box of automatic check-in / check-out was checked, and ] whether it is no (for example, was the O.K. carbon button pushed in the condition of having checked?). For example, as drawing 13 shows, when check box 241c in automatic check-in / out column 241b is checked, in step S6, the GUI section 101 sets the mode of operation of automatic check-in / check-out as ON, and the processing returns to step S1 (where check box 241c is checked, when the O.K. carbon button is pushed). In step S3, when judged with an external instrument and media tab 241a not having been chosen (i.e., when the tab for other setup was chosen or "cancellation" carbon button is chosen), the processing returns to processing of step S1.

[0149] In step S5, when judged with check box 241c of automatic check-in / out column 241b not being checked, in step S7, the GUI section 101 sets up the mode of operation of automatic check-in / check-out off, and, as for the processing, return and processing after it are repeated by step S1 (for example, when the O.K. carbon button is pushed in the condition that check box 241c is not checked).

[0150] Next, when PD5 is connected to a personal computer 1 with reference to the flow chart of drawing 14, processing of the automatic check-in / out which a personal computer 1 performs is explained.

[0151] In step S11, the GUI section 101 judges whether connection of PD5 (an external instrument and media) was detected through the transfer processing section 103 and the PD plug-in 111, and it repeats the processing until connection of PD5 is detected. For example, when judged with connection of PD5 having been detected and an external instrument and media having been detected, the processing progresses to step S12.

[0152] In step S12, it judges whether automatic check-in / check-out is set as ON. For example, when the mode of operation of automatic check-in / check-out is set as ON by setting processing of the automatic check-in / check-out explained with reference to the flow chart of drawing 11, the processing progresses to step S13.

[0153] In step S13, the GUI section 101 acquires the external instrument and the media ID of PD5 through the transfer processing section 103 and the PD plug-in 111.

[0154] The GUI section 101 makes the automatic check-out place storing section 113 refer to, and makes it judge in step S14 based on the external instrument and the media ID acquired to the music Management Department 104 whether they are the external instrument (it was recorded that processing of check-out/check-in was performed in the past) and media recorded beforehand. When it is judged with it being at this time, for example, the external instrument and media which were recorded beforehand, namely, judges with their being the external instrument and media which had checked in [ check-out or ] in the past, that processing progresses to step S15.

[0155] The GUI section 101 makes the automatic check-out place storing section 113 refer to, makes the check-out approach corresponding to an external instrument and

Media ID search to the music Management Department 104, and is made to read in step S15.

[0156] In step S16, as drawing 15 shows, the GUI section 101 displays the dialog box 251 for automatic check-in / check-out, and displays the time amount of a count-down on count-down display 251a. That is, in the case of drawing 15, "automatic check-in / check-out is performed to a dialog box 251. Please choose the contents of check-out. It starts after 8 seconds. It is displayed as ". Moreover, it corresponds to the external instrument and the media ID of PD5 registered into the automatic check-out place storing section 113, and is indicated by the contents of automatic check-out at contents display column of check-out 252a. In now, "random selection of music" is displayed on the contents display column 252 of check-out, and it is shown that the contents of automatic check-out stored in the contents storing section 112 of automatic check-out are "random selection of music."

[0157] In step S17, the GUI section 101 judges whether modification processing of a setup by the user was performed. For example, a user operates a mouse 19, and if the depression of the carbon button 252a on the right of the contents display column 252 of check-out shown by drawing 15 is carried out with a pointer 205, as drawing 16 shows, a drop down list 261 will be displayed on the bottom of the contents display column 252 of check-out. As selectable contents of check-out, "the music listened to recently", "little music of the count of check-out", "the music of a favorite play list", "random selection" of music and random selection of a play list", "assignment (Blues) of a genre", and "assignment (Red Planet) of a play list" are displayed on this drop down list 261, and it can be chosen as it by operating a pointer 205. When it will be in this condition, the GUI section 101 judges with modification processing of a setup by the user having been performed, and that processing progresses to step S18.

[0158] In step S18, the GUI section 101 stops a count-down. Namely, as drawing 16 shows, it changes count-down display 251a into the condition that the time amount of a count-down is non-display.

[0159] In step S19, the GUI section 101 controls the screen displayed on a display 20, and performs setting processing.

[0160] Here, setting processing is explained with reference to the flow chart of drawing 17.

[0161] In step S31, the GUI section 101 judges whether "the music listened to recently" was chosen. Are moved, and when a pointer 205 is chosen as "the music listened to recently" on the drop down list 261 shown by drawing 16 (clicked), for example, the GUI section 101 Judge with "the music listened to recently" having been chosen, the contents -1 of check-out ( drawing 9 showed) of the automatic check-out place storing section 113 are made to change into "the music listened to recently" to the music Management Department 104 in step S32, and the processing progresses to step S49.

[0162] In step S31, when judged with "the music listened to recently" not having been chosen, the processing progresses to step S33.

[0163] In step S33, the GUI section 101 judges whether "music with few counts of check-out" was chosen. Are moved, and when a pointer 205 is chosen as "music with few counts of check-out" on the drop down list 261 shown by drawing 16 (clicked), for example, the GUI section 101 Judge with "music with few counts of check-out" having been chosen, and it sets to step S34. To the music Management Department 104, the contents -1 of check-out (drawing 9 showed) of the automatic check-out place storing section 113 are made to change into "music with few counts of check-out", and the processing progresses to step S49.

[0164] In step S33, when judged with "music with few counts of check-out" not having been chosen, the processing progresses to step S35.

[0165] In step S35, the GUI section 101 judges whether "the music of a favorite play list" was chosen. Are moved, and when a pointer 205 is chosen as "the music of a favorite play list" on the drop down list 261 shown by drawing 16 (clicked), for example, the GUI section 101 Judge with "the music of a favorite play list" having been chosen, and it sets to step S36. To the music Management Department 104, the contents -1 of check-out (drawing 9 showed) of the automatic check-out place storing section 113 are made to change into "the music of a favorite play list", and the processing progresses to step S49.

[0166] In step S35, when judged with "the music of a favorite play list" not having been chosen, the processing progresses to step S37.

[0167] In step S37, the GUI section 101 judges whether "random selection of music" was chosen. Are moved, and when a pointer 205 is chosen as "random selection of music" on the drop down list 261 shown by drawing 16 (clicked), for example, the GUI section 101 Judge with "random selection of music" having been chosen, the contents -1 of check-out (drawing 9 showed) of the automatic check-out place storing section 113 are made to change into "random selection of music" to the music Management Department 104 in step S38, and the processing progresses to step S49.

[0168] In step S37, when judged with "random selection of music" not having been chosen, the processing progresses to step S39.

[0169] In step S39, the GUI section 101 judges whether "random selection of a play list" was chosen. Are moved, and when a pointer 205 is chosen as "random selection of a play list" on the drop down list 261 shown by drawing 16 (clicked), for example, the GUI section 101 Judge with "random selection of a play list" having been chosen, and it sets to step S40. To the music Management Department 104, the contents -1 of check-out (drawing 9 showed) of the automatic check-out place storing section 113 are made to change into "random selection of a play list", and the processing progresses to step S49.

[0170] In step S39, when judged with "random selection of a play list" not having been

chosen, the processing progresses to step S41.

[0171] In step S41, the GUI section 101 judges whether "assignment of a genre" was chosen. For example, when a pointer 205 is moved and chosen as "assignment of a genre" on the drop down list 261 shown by drawing 16 (clicked), the GUI section 101 judges with "assignment of a genre" having been chosen, and as drawing 18 shows, it displays the dialog box 271 which shows the detail of a genre in step S42. A selectable genre name is displayed on genre name selection column 271a by the dialog box 271, and can choose a desired genre as it by operating a pointer 205.

[0172] In step S43, the GUI section 101 judges whether it is the no as which the genre was chosen. For example, as drawing 18 shows, supposing "Blues" is chosen, it will be judged with the genre having been chosen, and the processing progresses to step S44. In step S44, the GUI section 101 is set up as a genre name (in now, Blues is set as a genre name) which the contents -1 of check-out were chosen to the music Management Department 104 as information on the check-out place memorized in the automatic check-out place storing section 113, and had the variable value -1 (parameter) chosen as "assignment of a genre", and the processing progresses to step S49.

[0173] In step S41, when judged with "assignment of a genre" not having been chosen, or when it is judged with a genre not having been chosen in step S43, the processing progresses to step S45.

[0174] In step S45, the GUI section 101 judges whether "assignment of a play list" was chosen. For example, when a pointer 205 is moved and chosen as "assignment of a play list" on the drop down list 261 shown by drawing 16 (clicked), the GUI section 101 judges with "assignment of a play list" having been chosen, and as drawing 19 shows, it displays the dialog box 281 which shows the detail of a play list in step S46. A selectable play list name is displayed on play list name selection column 281a by the dialog box 281, and can choose a desired genre as it by operating a pointer 205.

[0175] In step S47, the GUI section 101 judges whether it is the no as which the genre was chosen. For example, as drawing 19 shows, supposing "Blue Moon" is chosen, it will be judged with the play list having been chosen, and the processing progresses to step S48. In step S48 the GUI section 101 To the music Management Department 104 as information on the check-out place memorized in the automatic check-out place storing section 113 The contents -1 of check-out are set up as "assignment of a play list" as a play list name (in now, Blue Moon is set as a play list name) which had the variable value -1 (parameter) chosen, and the processing progresses to step S49.

[0176] In step S45, when judged with "assignment of a play list" not having been chosen, or when it is judged with a play list not having been chosen in step S47, the processing returns to step S31.

[0177] In step S49, the GUI section 101 judges whether the mix was chosen or not. For example, if the mix carbon button 253 on a dialog box 251 is pushed by the pointer

205 as drawing 15 shows, as drawing 20 shows (when a mouse 19 is clicked) Please choose as the lower part of a dialog box 251 the contents mixed at the time of "check-out." -- it is displayed, and further, the contents display column 291 of check-out is displayed on the bottom of it, it is judged with the mix having been chosen at this time, and that processing progresses to step S50. In step S50, the GUI section 101 performs mix check-out setting processing.

[0178] In addition, if a pointer 205 is moved on carbon button 291a shown by drawing 20 and it clicks, as drawing 21 shows, a drop down list 261 (drawing 16) and the same drop down list 301 will be displayed. That is, mix check-out setting processing is processing which rewrites the contents -2 of check-out, and a variable value -2 among the information memorized by the automatic check-out place storing section 113, and since substantial mix check-out setting processing is the same as step S31 of drawing 17 thru/or processing (processing from which steps S49 and S50 were deleted among the flow charts of drawing 7) of S48, the explanation omits.

[0179] In step S49, when judged with the mix not being chosen, while processing of step S50 is skipped and setting processing is ended, the processing returns to step S16 (drawing 14).

[0180] In addition, in the above processing, although setting processing has explained the case where an external instrument and Media ID are registered beforehand At the time of PD5 with non-registered the external instrument and the media ID used for the first time, steps S32, S34, S36, S38, S40, and S44, Or in processing of S48, the external instrument and the media ID of the PD5 are read, and the corresponding contents -1 of check-out and -2 are newly registered into the automatic check-out place storing section 113.

[0181] Here, it returns to explanation of the flow chart of drawing 14.

[0182] In step S17, when judged with modification processing of a setup by the user not having been performed, the processing progresses to step S20. In step S20, the GUI section 101 judges whether the set-up time amount passed, and the processing returns to step S17 until the setup time passes. That is, processing of steps S17 and S20 is repeated until the time amount set up by the count-down passes. In step S20, when the setup time passes, namely, is judged as the count-down having been completed, the processing progresses to step S21. The transfer processing section 103 makes all the music files (contents) currently recorded on PD5 check in at a personal computer 1. in step S21.

[0183] In step S22, when the GUI section 101 is asked to the music Management Department 104, and it judges whether the mix is specified from the contents of check-out memorized by the automatic check-out place storing section 113, for example, it is judged with the mix not being set up, the processing progresses to step S23.

[0184] In step S23, the GUI section 101 makes the definition file corresponding to the

set-up contents of check-out read from the contents storing section 112 of automatic check-out through the music Management Department 104, based on the definition file, carries out check-out assignment of the predetermined contents, and displays a corresponding image. Namely, when specifying it that he checks out the music file (contents) to which it corresponds to "AAA" among genre names further to PD5, as the contents of check-out are genre assignment, and drawing 22 shows for example "Song-3" corresponding to the genre "AAA" among the contents displayed on the PC field 202, Check-out assignment of "Song-5" and "Song-7" is carried out. The rightward arrow head which shows check-out in the PD field 201 is displayed on the left-hand side of a title, and the leftward arrow head which shows check-in is displayed on the left-hand side of a title about the other contents. Thus, the contents (music file) by which check-out assignment was carried out; and the contents (music file) by which check-in assignment was carried out are displayed.

[0185] In step S24, the transfer processing section 24 checks out the music file by which read the corresponding file and check-out assignment was carried out, and the GUI section 101 displays a corresponding image on a display 20. As drawing 22 shows, when check-out assignment is carried out, namely, by processing of step S24 As drawing 23 shows, "Song-3" which is the music file by which check-out assignment was carried out, "Song-5", and "Song-7" It is displayed on the PD field 201 and the other music file "Song-9", "Song-11", and "Song-15" check in at a personal computer 1 from PD5.

[0186] In step S22, when judged with the mix having been set up, the processing progresses to step S25. In step S25, the GUI section 101 performs mix check-out assignment processing.

[0187] Here, drawing 24 carries out flow chart reference, and mix check-out processing is explained.

[0188] In step S61, the music Management Department 104 acquires the list of the contents corresponding to the contents -1 of check-out stored in the automatic check-out place storing section 113, and sets up array A (m) from them.

[0189] In step S62, the music Management Department 104 acquires the list of the contents corresponding to the contents -2 of check-out stored in the automatic check-out place storing section 113, and sets up array B (n) from them.

[0190] In step S63, the music Management Department 104 initializes Counter i to i=0. In step S64, the music Management Department 104 judges whether whether their being  $i < m$  or  $i < n$  and Counter i are smaller than either of the number of the contents of the contents -1 of check-out, array A (m) as which it was defined by -2, and B (n), and when it judges with their being  $i < m$  or  $i < n$ , the processing progresses to step S65.

[0191] In step S65, when judged with it being judged whether Counter i is  $i < m$  and being  $i < n$ , in step S66, the music Management Department 104 judges whether there is any availability of PD5 (record medium) through the transfer processing section 103

and the PD plug-in 111 (is there any capacity which can check out the contents defined by A (i), or is there nothing?). In step S66, when judged with there being an availability of PD5, in step S67, the music Management Department 104 does check-out assignment of the music file (contents) equivalent to array A (i), and while the GUI section 101 displays a corresponding image on a display 20, the processing progresses to step S68.

[0192] In step S68, when judged with it being judged whether Counter i is  $i < n$  and being  $i < n$ , in step S69, the music Management Department 104 judges whether there is any availability of PD5 (record medium) through the transfer processing section 103 and the PD plug-in 111. In step S69, when it judges with there being an availability of PD5, in step S70, the music Management Department 104 does check-out assignment of the music file (contents) equivalent to array B (i), and while the GUI section 101 displays a corresponding image on a display 20, the processing progresses to step S71.

[0193] In step S71, only 1 increments Counter i, the music Management Department 104 makes it  $i = i + 1$ , and the processing progresses to step S64.

[0194] In step S64, when it judges with their not being  $i < m$  or  $i < n$ , it is considered that the contents -1 of check-out and the contents (music file) specified by -2 do not exist, and the processing is ended.

[0195] In steps S66 or S69, when judged with there being no availability in PD5 (record medium), it considers that record of the music file beyond it (contents) is impossible, and the processing is ended.

[0196] Namely, check-out assignment of the contents -1 of check-out and the contents by which an array setup was carried out at each of -2 is carried out by turns by the above processing by steps S67 and S70. When the contents which should carry out check-out assignment are lost (whether it is  $i < m$  in step S64) Or when it is not  $i < n$ , or when it is judged with there being no availability in a record medium, check-out assignment processing of contents is ended (when judged with there being no availability in steps S66 and S69).

[0197] Here, it returns to explanation of the flow chart of drawing 14.

[0198] In step S12, since processing of automatic check-in will be performed when it judges with automatic check-in / out not being set as ON, all of step S13 thru/or processing of S24 are skipped, and the processing is ended.

[0199] In step S14, when judged with their not being the external instrument and the media ID recorded beforehand, since the information on the contents of check-out corresponding to an external instrument and media will be stored in the automatic check-out place storing section 113, the processing which searches the contents of check-out corresponding to an external instrument and Media ID in processing of step S5 is skipped.

[0200] According to the above, only by connecting PD5 to a personal computer 1 According to the contents of check-out set up beforehand, he checks in at the

contents currently recorded on PD5 at a personal computer 1. Since he can check out predetermined contents from a personal computer 1 to PD5 For example, if it sets up so that he may check out a predetermined genre when a newly released piece of music downloads in a personal computer 1 every day Since it is checked out by PD5 only in the newly released piece of music of the genre set up among the newly released pieces of music downloaded every day, a user can enjoy the newly released piece of music of a favorite genre on a daily basis only by connecting PD5 to a personal computer 1 every day.

[0201] Although the example which performs setting processing of automatic check-in / out point to the timing by which processing of automatic check-in / out is performed has been explained, you may enable it to perform these setting processings in the above explanation by being except the timing by which processing of automatic check-in / out is performed.

[0202] Then, with reference to the flow chart of drawing 25, automatic check-in / check-out place setting processing is explained.

[0203] In step S81, the GUI section 101 judges whether a check-out place setup was chosen, and it repeats the processing until a check-out place setup is chosen. For example, if "an automatic check-out place setup" in the drop down list 231 of drawing 12 is chosen, the GUI section 101 will judge with a check-out place setup having been chosen, and the processing will progress to step S82.

[0204] In step S82, the GUI section 101 displays the dialog box 321 for an automatic check-out place setup, as drawing 26 shows. In the dialog box 321, the information on the check-out place now stored in current and the automatic check-out place storing section 113 is displayed on the external instrument and the media display column 322. An external instrument and a media name, the contents of check-out (1), and check-out (2) are displayed on the external instrument and the media display column 322 from \*\*\*\*\*. The contents of check-out (1) and (2) show the contents -1 of check-out memorized by the automatic check-out place storing section 113, and the information on -2, respectively. In now, "assignment of a genre" is chosen as "the music listened to recently" and the contents of check-out (2) by the contents of check-out (1), and it is shown at the memory card A at them that "Blues" is specified as a genre. Furthermore, "assignment of a genre" is chosen as the contents of check-out (1), "Blues" is specified as them by the memory card B as a genre, and it is shown in the contents of check-out (2) at it that there are no contents of assignment.

[0205] In step S83, the GUI section 101 judges whether the addition was chosen or not. For example, if the additional carbon button of the carbon button 323 of drawing 26 is pushed, it will judge with the addition having been chosen, and in step S84, the GUI section 101 displays the dialog box 331 of an automatic check-out place addition, as drawing 27 shows. The text data which specifies the external instrument and media which a user wants to add can be inputted into input column 331a on a dialog box.

[0206] Setting processing is performed in step S85. Since processing which the contents display column 252,291 of check-out of drawing 20, the contents display column 322,333 of check-out corresponding to carbon buttons 252a and 291a, and carbon buttons 332a and 333a are formed, and was explained with reference to the flow chart of drawing 17, and same processing are performed in now, the explanation is omitted. In addition, although it is in the condition that the mix carbon button 253 in drawing 20 was pushed, you may enable it to realize same processing by choosing "it is nothing" in the contents display column 333 of check-out in drawing 27 to specify a mix.

[0207] In step S86, when it judges that the GUI section 101 judged and pushed whether the O.K. carbon button was pushed, in step S87, the GUI section 101 memorizes additional contents temporarily, and the processing progresses to step S88.

[0208] In step S88, the GUI section 101 judges whether edit was chosen or not. For example, if the edit carbon button of the carbon button 324 of drawing 26 is pushed, it will judge with edit having been chosen, and in step S89, the GUI section 101 displays the dialog box 341 of automatic check-out place edit, as drawing 28 shows.

[0209] Setting processing is performed in step S89. Since the processing same like drawing 27 as the processing which the contents display column 252,291 of check-out of drawing 20, the contents display column 342,343 of check-out corresponding to carbon buttons 252a and 291a, and carbon buttons 342a and 343a are formed, and was explained with reference to the flow chart of drawing 17 is performed in now, the explanation is omitted. In addition, although it is in the condition that the mix carbon button 253 in drawing 20 was pushed, you may enable it to realize same processing by choosing "it is nothing" in the contents display column 333 of check-out in drawing 28 to specify a mix.

[0210] In step S91, when it judges that the GUI section 101 judged and pushed whether the O.K. carbon button was pushed, in step S92, the GUI section 101 memorizes additional contents temporarily, and the processing progresses to step S93.

[0211] In step S93, the GUI section 101 judges whether deletion was chosen or not. For example, if the deletion carbon button of the carbon button 325 of drawing 26 is pushed, it will judge with deletion having been chosen, and in step S94, the GUI section 101 deletes the contents of check-out of the external instrument and media chosen, and memorizes them temporarily.

[0212] In step S95, when it judges whether O.K. was chosen or not and judges with having been chosen by O.K., in step S96, the GUI section 101 controls the music Management Department 104, makes the information on the addition and edit which were temporarily memorized for every external instrument and media ID in the automatic check-out place storing section 113, or deletion memorize, and ends the

processing.

[0213] In step S95, when judged with O.K. not having been chosen, in step S97, the GUI section 101 judges whether cancellation was chosen or not, and when it judges with cancellation having been chosen, the processing progresses to step S98.

[0214] In step S98, the GUI section 101 does not change the contents of a setting of the automatic check-out place storing section 113 about an automatic check-out place, and ends processing as it is.

[0215] In step S83, when judged with an addition not having been chosen, step S84 thru/or processing of S87 are skipped. In step S86, when O.K. was not pushed, namely, is canceled, processing of step S87 is skipped.

[0216] In step S88, when judged with edit not having been chosen, step S89 thru/or processing of S92 are skipped. In step S91, when O.K. was not pushed, namely, is canceled, processing of step S92 is skipped.

[0217] In step S93, when judged with deletion not having been chosen, processing of step S94 is skipped. In step S97, when cancellation is not chosen, as for the processing, return and processing after it are repeated by step S83.

[0218] In addition, although the automatic check-out place storing section 113 of a personal computer 1 had memorized the contents of check-out, for example, an external instrument and media (in the case of now PD5) can also be made to also memorize the contents of check-out by clicking a check box 334,344 and making a check mark input in the above example, as drawing 27 and drawing 28 show. Even when PD5 is connected to personal computers other than personal computer 1 which set up the contents of check-out of PD5 by doing in this way, it \*\* by the contents of check-out, and it becomes possible to realize the above processings.

[0219] Moreover, in the above example, although the case where a memory card is used as an example of PD5 has been explained, the other external instrument or a record medium may be used, for example, you may be MD (Mini Disc (trademark)) etc.

[0220] Although the example in which a music file is used above as contents has been explained, contents may be not only a music file but image files. Moreover, although the contents of automatic check-out (approach) have explained seven cases, "the music listened to recently", "little music of the count of check-out", "the music of a favorite play list", "random selection of music", "random selection of a play list", "assignment of a genre", and "assignment of a play list", they may be except these approaches.

[0221] Furthermore, although the case where the two contents of check-out can be set up has been explained, there may be the number of the contents of check-out which can be set up not only this but more than it, and the contents corresponding to the contents of check-out are not only outputted by turns, but are made to be checked out in order of others in a setup of a mix in the above example.

[0222] According to the above, it becomes possible to be made to perform rewriting

processing to the record medium of the contents recorded on the personal computer etc. more easily.

[0223] Although a series of processings mentioned above can also be performed by hardware, they can also be performed with software. When performing a series of processings with software, the program which constitutes the software is installed in a general-purpose personal computer etc. from a record medium possible [ performing various kinds of functions ] by installing the computer built into the hardware of dedication, or various kinds of programs.

[0224] Are provided for a user in the condition of having been beforehand included in the personal computer 1 as this record medium was shown in drawing 2. Not only apart from HDD21 on which the program is recorded but apart from a computer The magnetic disk 41 (a flexible disk is included) which is distributed in order to provide a user with a program and with which the program is recorded, an optical disk 42 (CD-ROM (Compact Disk-Read Only Memory) --) DVD (DigitalVersatile Disk) is included -- it is constituted by the package media which consist of a magneto-optic disk 43 (MD (Mini-Disk) (trademark) is included) or semiconductor memory 44 (Memory Stick is included).

[0225] In addition, in this specification, even if the processing serially performed in accordance with the sequence that the step which describes the program recorded on a record medium was indicated is not of course necessarily processed serially, it is a juxtaposition thing including the processing performed according to an individual.

[0226] Moreover, in this specification, a system expresses the whole equipment constituted by two or more equipments.

[0227]

[Effect of the Invention] The data which were recorded on the information processor of this invention and the approach, and the list by the record medium according to the program are read. Since the data containing the read data which extracted the data corresponding to predetermined conditions from the data which memorized data and were memorized, and were extracted were recorded on the record medium, it becomes possible to be made to perform rewriting processing to the record medium of the recorded contents more easily.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is drawing showing the gestalt of 1 operation of the contents data management system concerning this invention.

[Drawing 2] It is a block diagram explaining the configuration of a personal computer.

- [Drawing 3] It is a block diagram explaining the function of a personal computer.
- [Drawing 4] It is drawing showing the example of the data which the database of drawing 3 records.
- [Drawing 5] It is drawing explaining correspondence with music and a file.
- [Drawing 6] It is drawing showing the example of right information.
- [Drawing 7] It is drawing explaining processing of encryption of contents, processing of addition of the right information corresponding to contents, and processing of conversion of the coding method of contents.
- [Drawing 8] It is drawing showing the example of description of the definition file of the check-out approach stored in the contents storing section of automatic check-out of drawing 3.
- [Drawing 9] It is drawing showing the information stored in the automatic check-out place storing section of drawing 3.
- [Drawing 10] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 11] It is a flow chart explaining automatic check-in / check-out setting processing.
- [Drawing 12] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 13] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 14] It is a flow chart explaining automatic check-in / check-out processing.
- [Drawing 15] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 16] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 17] It is a flow chart explaining setting processing of drawing 14.
- [Drawing 18] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 19] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 20] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 21] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 22] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 23] It is drawing showing the example of a display of the screen displayed on a display.
- [Drawing 24] It is a flow chart explaining mix check-out processing of drawing 14.

[Drawing 25] It is a flow chart explaining automatic check-in / check-out place setting processing.

[Drawing 26] It is drawing showing the example of a display of the screen displayed on a display.

[Drawing 27] It is drawing showing the example of a display of the screen displayed on a display.

[Drawing 28] It is drawing showing the example of a display of the screen displayed on a display.

**[Description of Notations]**

1 Personal Computer 2 Network, 3 An EMD server, 4 A WWW server, 5-1 thru/or 5-3  
A portable device, 11 CPU 12 ROM, 13 RAM 21 HDD, 41 A magnetic disk, 42 An  
optical disk, 43 Magneto-optic disk 44 Semiconductor memory, 101GUI section 102  
The contents management processing section, 103 Transfer processing section The  
104 music Management Department, 105 Right information storing section 106 file  
search section 107 databases, 108-1 and 108-2 The music file storing section, 109-1  
and 109-2 PC plug-in 110-1 and 110-2 Voice output section 111-1 and 111-2 112  
The contents storing section of automatic check-out 113 Automatic check-out place  
storing section